

VII. *Synopsis of British Hemiptera-Heteroptera.*

By EDWARD SAUNDERS, F.L.S. PART I.

[Read 5th April, 1875.]

THE following pages have been prepared in order to give a short and concise monograph of our British *Hemiptera-Heteroptera*, and to show plainly, by means of analytical tables, the distinguishing characters of their genera and species. It may be thought that, whilst entomologists have such a book as Messrs. Douglas & Scott's "British Hemiptera," nothing further is needed; but since its publication many new species have been added and many corrections made; and the analytical tables here employed will, I believe, supply a want much felt by those who have studied Messrs. Douglas & Scott's work. In order to form these tables I have borrowed freely from Fieber, Mulsant and other continental authors; and I must remark that the characters here employed are only meant to distinguish our British genera and species apart, and may not always suffice to distinguish them from their European allies; but this book being meant for students of our British forms, I have thought it undesirable to use the more puzzling characters which are necessary to distinguish the European genera and species, although such a course would perhaps have been the more scientific. I have much pleasure here in thanking those who have kindly helped me with the loan of specimens, &c., and especially Messrs. Douglas & Scott and Dr. Power, and also Dr. Puton, for the ready way in which they have helped me whenever I have applied for their valuable assistance.

## HEMIPTERA-HETEROPTERA.

- |   |    |    |    |                      |
|---|----|----|----|----------------------|
| I. Antennæ visible, legs not natatorial.. | .. | .. | .. | <i>Gymnocerata.</i>  |
| II. Antennæ hidden, legs natatorial       | .. | .. | .. | <i>Cryptocerata.</i> |

## GYMNOCERATA.

- |   |    |    |    |    |    |                      |
|---|----|----|----|----|----|----------------------|
| I. Elytra formed of several pieces joined together or reticulated | .. | .. | .. | .. | .. | <i>Geodromica.</i>   |
| II. Elytra formed of one piece                                    | .. | .. | .. | .. | .. | <i>Hydrodromica.</i> |

N.B.—This last division contains those species only that run or leap on the surface of the water.

*GEODROMICA.*

- I. Scutellum attaining at least to the base of the membrane.
- A. Scutellum very nearly, or quite, covering the membrane .. .. . *Tetyræ.*
- AA. Scutellum not nearly covering the membrane.
- a. Tibiæ spiny .. .. . *Cydniidæ.*
- b. Tibiæ not spiny .. .. . *Arthropteridæ.*
- II. Scutellum not attaining to the base of the membrane.
- A. Elytra composed of corium, clavus and membrane.
- B. Joints of the tarsi three on all the legs.
- C. Rostrum four-jointed.
- D. Antennæ filiform at the apex .. .. . *Nabidæ.*
- DD. Antennæ more or less thickened at the apex.
- E. Ocelli wanting .. .. . *Pyrhocoridæ.*
- EE. Ocelli present.
- F. Antennæ above the line of the eyes.
- a. Species very elongate, with very long delicate legs .. .. . *Berytidæ.*
- b. Species without very long delicate legs .. *Coreidæ.*
- FF. Antennæ below the line of the eyes. .. .. . *Lygæidæ.*
- CC. Rostrum three-jointed.
- D. Ocelli present.
- E. Membrane in one piece with the rest of the elytra .. .. . *Ceratocombidæ.*
- EE. Membrane distinct.
- a. Rostrum long, antennæ more or less thickened at the apex .. .. . *Saldidæ.*
- b. Rostrum short, antennæ filiform at the apex .. .. . *Reduviidæ.*
- DD. Ocelli wanting. .. .. . *Acanthidæ.*
- BB. Joints of the tarsi two on the front legs.
- a. Second joint of antennæ much longer than the other three put together .. .. . *Tingididæ.*
- b. Second joint of antennæ of normal length .. *Aradidæ.*
- AA. Elytra composed of corium, clavus, cuneus and membrane .. .. . *Phytocoridæ.*
- AAA. Elytra composed of corium, clavus, embolium, cuneus and membrane.
- B. Rostrum three-jointed .. .. . *Anthocoridæ.*
- BB. Rostrum four-jointed .. .. . *Microphysidæ.*

*TETYRÆ.*

- I. Entire insect hairy .. .. . *Odontoscelis.*
- II. Insect not hairy.
- A. Legs with long spines .. .. . *Corimelæna.*
- AA. Legs without spines, or with very short ones.
- a. Front angles of thorax without processes .. *Eurygaster.*
- b. Front angles of thorax with processes .. *Podops.*

## CORIMELÆNA.

1. *scarabæoides*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 2.

Short, oval, dark bronzy, closely punctured; legs black, tarsi and antennæ piceous.

Length  $1\frac{1}{2}$  line.

Moss, dead leaves, &c.

## ODONTOSCELIS.

1. *fuliginosus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 3.

Insect hairy; head and thorax more or less dark, the base of the latter often pale, disk with a white median line; elytra of a dirty ochreous colour, with black markings and with a narrow, pale dorsal line; thorax and elytra sometimes nearly black, with the dorsal line, and a longitudinal stripe from each shoulder, pale.

Length 3— $3\frac{1}{2}$  lines.

Sandhills, Deal; not rare.

## EURYGASTER.

1. Sides of thorax straight .. .. . *maurus*.

2. Sides of thorax rounded .. .. . *niger*.

1. *maurus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 5.

Colour variable, sometimes pale greyish-brown all over; at other times dirty ochre colour, with darker markings; connexivum spotted with dark brown; surface punctured with darker punctures; scutellum with a white tubercle on each side of the base; central lobe of the face extending to the anterior margin of the head.

Length 5 lines.

By sweeping, &c.; not uncommon.

2. *niger*, Fab. Fig. Panz. Faun. Germ. cxi. 7.

Flatter than the preceding; pale or dark ochreous-brown; connexivum not spotted; scutellum much longer and narrower than in *E. maurus*, and without white tubercles at the base; central lobe of the face not extending to the anterior margin of the head.

Length 6 lines.

Rare; sandhills, Deal.

## PODORS.

1. *inunctus*, Fab. Fig. Dougl. & Scott, Brit. Hem. ii. fig. 8.

Of a dirty brown colour, with dark punctures; head slightly darker than the rest of the body; thorax with a triangular-shaped process at each anterior angle; scutellum with a pale tubercle on each side at the base.

Length 3 lines.

Moss, roots of grass, &c.; not uncommon.

## CYDNIDÆ.

- I. Head and thorax with long scattered hairs, clypeus not notched .. .. . *Geotomus*.  
 II. Head and thorax not hairy, clypeus more or less notched .. .. . *Sehirus*.

## GEOTOMUS.

1. *punctulatus*, Costa. Fig. Costa, Cent. II. dec. 6, pl. v.

Dark pitchy-brown, almost black, except immature specimens, which are testaceous. Thorax posteriorly, scutellum and elytra, closely punctured; membrane dusky, pale at the base; head and thorax with long projecting hairs round their margins.

Length 2 lines.

White Sand Bay, Cornwall; under stones and *Erodium*.

## SEHIRUS.

1. Entirely black .. .. . *morio*.  
 2. With white margin and white spots on the elytra.  
 a. A small white spot on the disk of each clytron .. *biguttatus*.  
 b. A large white spot on the shoulder and a second above the membrane .. .. . *bicolor*.  
 3. Margins only white.  
 a. About 4 lines long, steel-blue .. .. . *dubius*.  
 b. About 2 lines long, blue-black .. .. . *albomarginatus*.

1. *bicolor*, Linn. Fig. Panz. Faun. Germ. 32, 11.

Black, with a bluish tinge; a spot on each side of the thorax in front, a large spot on each shoulder somewhat of a kidney-shape, and a spot at the apex of the corium white; membrane pale; tibiæ white externally on their basal half.

Length 3—3½ lines.

Common in sandpits and by sweeping.

2. *dubius*, Scop. Fig. Curtis, Brit. Ent. ii. 74.

Bright purplish-blue; sides of the thorax and elytra narrowly pale; connexivum posteriorly white, spotted with black. Surface punctured.

Length  $3\frac{1}{2}$ —4 lines.

Rare. Isle of Wight; Portland; Pangbourne.

3. *biguttatus*, Linn. Fig. Panz. Faun. Germ. 32, 13.

Black; sides of the thorax and elytra and a spot on the disk of each elytron white. Thorax very coarsely and remotely punctured.

Length 3— $3\frac{1}{2}$  lines.

Not common. London district.

4. *morio*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 1.

Entirely black except the tarsi and the base of the antennæ; surface closely punctured.

Length  $3\frac{1}{2}$ —5 lines.

London district. Not common.

5. *albomarginatus*, Fab. Fig. Panz. Faun. Germ. 33, 20.

Much smaller and more convex than any of the preceding. Black, rugosely punctured, margins of the elytra white.

Length 2 lines.

Common at the roots of grass in dry places.

## ARTHROPTERIDÆ, Fieb.

I. Sides of thorax foliaceous .. .. . *Sciocoris*.

II. Sides of thorax not foliaceous.

A. Nose deflected, somewhat pointed.

a. Nose very elongate, narrowly pointed .. *Ælia*.

b. Nose short, widely pointed .. .. *Ælioides*.

AA. Nose horizontal, short, generally bilobate.

B. Joints of tarsi three.

C. Second segment of abdomen without a process.

D. Very short and robust, elytra at the base wider than long .. .. . *Eysarcoris*.

DD. Not very short and robust, elytra at the base not wider than long.

E. Sides of thorax in front rugose or roughly toothed.

F. Front thighs toothed beneath .. .. *Picromerus*.

- FF. Front thighs not toothed.
- a. Apical joint of antennæ shorter than fourth .. .. . *Podisus.*
- b. Apical joint of antennæ longer than fourth .. .. . *Ithacognathus.*
- EE. Sides of thorax not rugose or rugosely toothed in front.
- F. Front thighs toothed beneath .. .. . *Jalla.*
- FF. Front thighs not toothed.
- G. Margins of thorax not sharply defined, species bright blue .. .. . *Zicrona.*
- GG. Margins of thorax sharply defined, generally reflexed
- a. Margins of head reflexed, species small and bright .. .. . *Strachia.*
- b. Margins of head not reflexed, species not small and bright .. .. . *Pentatoma.*
- CC. Second segment of abdomen with a process.
- a. Process very short and blunt, posterior angles of thorax much produced .. .. . *Tropicoris.*
- b. Process elongate, posterior angles of thorax not produced .. .. . *Piezodorus.*
- BB. Joints of tarsi two .. .. . *Acanthosoma.*

### SCIOCORIS.

1. *terreus*, Schrk. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 4.

Obscure dirty ochreous colour, with darker brown markings; punctuation dark and rather dense; front margin of the thorax deeply incised. Membrane not reaching to the apex of the body. Connexivum spotted with brown.

Length  $2\frac{1}{2}$  lines.

Sandhills, Deal; not uncommonly.

### ÆLIA.

1. *acuminata*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 6.

Ochreous; centre of the head and thorax with a brownish stripe, widest at the base of the thorax, narrowest at the apex of the head, darkest at the margins, in the middle of which is a narrow, pale, slightly raised line; near each lateral margin is another darker line, the margins themselves pale. Scutellum with a pale line down the centre and a rudimentary one on each side; entire insect strongly punctured; sides of the thorax and head in the same lines.

Length 4 lines.

Occasionally by sweeping, &c.

## ÆLIOIDES.

1. *inflexus*, Wolff. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 7.

Pale brownish-ochre colour, largely and darkly punctured. Head rather darker than the rest of the body; lateral margins and dorsal line of the thorax narrowly pale; anterior angles with a very slight lateral process; base of the scutellum with a paler spot at each extremity.

Length  $2\frac{1}{2}$  lines.

By sweeping, &c.

## EYSARCORIS.

1. Scutellum with a bronzy patch at the base .. *melanocephalus*.  
 2. Scutellum without any bronzy patch and with a small white speck on each side .. .. *æneus*.

1. *melanocephalus*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 9.

Head, front of thorax and scutellum bright coppery-bronze or bronzy-black colour, the rest of the insect pale, largely and darkly punctured; connexivum flavous, spotted with black.

Length  $2\frac{1}{2}$  lines.

New Forest and Darenth Wood.

2. *æneus*, Scop. Fig. (*perlatum*) Hahn, Wanz. Ins. ii. p. li. fig. 155.

Pale ochreous-brown; head bronzy-green; thorax bronzy-black on each side near the anterior margin; surface largely and darkly punctured. Scutellum same colour as the elytra, with a raised white tubercle on each side of the base; posterior angles of the thorax much produced.

Length  $2\frac{1}{2}$  lines.

New Forest.

## ZICRONA.

1. *cærulea*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iii. fig. 3.

Bright blue or blue-green, shining, punctured; legs and antennæ black.

Length  $2\frac{3}{4}$ — $3\frac{1}{2}$  lines.

London district; and among heather, Scarborough.

## JALLA.

1. *dumosa*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iii. fig. 4.

Head, antennæ, front of thorax, scutellum and legs black, the rest brownish. A stripe down the centre of the head, side margins and dorsal line of the thorax in front, dorsal line of the scutellum and a spot on each side, and a ring round each tibia, red. Whole insect largely punctured.

Length 6 lines.

Very rare, eastern coasts. In larva state, Deal, July, 1868.

## RHACOGNATHUS.

1. *punctatus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iii. fig. 5.

Luteous-brown, closely and deeply punctured with black punctures. Head, sides of the thorax, and sometimes the scutellum and elytra, more or less bronzy, or bronzy-green. Dorsal line of thorax pale, a spot on each segment of the connexivum, and a ring on each tibia, red. Antennæ black, base of 3rd joint narrowly pale. Beneath pale, variegated with black, or entirely bronzy-green.

Length 4 lines.

Not common.

## PODISUS.

1. *luridus*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. iii. fig. 6.

Yellowish-brown, closely punctured with bronzy punctures. Head, sides of thorax and connexivum bronzy-green, the latter with red transverse spots; sides of the thorax roughly and unevenly denticulate in front, posterior angles much produced. Antennæ black, apex of 4th joint widely red. Legs pale, spotted with black.

Length 5 lines.

Not common.

## STRACHIA.

1. Bright red, with black markings .. .. *festiva*.  
2. Green or blue, with yellow or red markings .. .. *oleracea*.

1. *festiva*, Linn. Fig. Panz. Faun. Germ. vi. 19.

Vermilion red. Head, three spots on each side of the thorax, a large triangular spot at the base of the scutel-



lum, clavus, claval suture of corium, a large spot extending from the claval suture nearly to the lateral margin, a small round spot below it, and the membrane, black; beneath red with black spots.

Length  $3\frac{1}{2}$ —4 lines.

Not common; found on flowers.

2. *oleracea*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iii. fig. 2.

Bright olive-green, punctured, front margin of the head, lateral margins of the thorax and dorsal line, apex of scutellum, and a spot on the corium on each side of it, an elongate spot behind the shoulder, a spot on each segment of the connexivum, apex of femora, and a ring on each tibia, white or red; beneath olive-green.

Length  $3\frac{1}{2}$ —4 lines.

On flowers, &c., by sweeping.

#### PENTATOMA.

- I. Angles of thorax produced and pointed .. .. *baccarum*.  
 II. Angles of thorax not produced.

##### A. Species brown.

1. Legs hairy .. .. *verbasci*.  
 2. Legs not hairy .. .. *vernale*.

##### AA. Species green.

1. Sides of thorax and apex of scutellum  
 concolorous .. .. *viridissima*.  
 2. Sides of thorax and apex of scutellum  
 pale .. .. *juniperinum*.

1. *baccarum*, Linn. Fig. Panz. Faun. Germ. 113—9  
 (*nigricorne*) (colour too dull) = *nigricorne*, Dougl.  
 & Scott.

Ochreous, covered with black punctures. Scutellum and thorax transversely rugose. Apex of head, sides of thorax, tibiae and corium of a more or less orange-red. Antennae, sides of the head, and the very prominent sharp posterior angles of the thorax, black. Connexivum with dusky spots; beneath ochreous.

Length 6 lines.

Very rare; Devonshire.

2. *verbasci*, Linn. Fig. (*baccarum*) Panz. Faun. Germ. 33, 20.

Luteous-brown, closely punctured with black punctures. Legs and underside with long hairs, the hairs projecting in places round the sides. Scutellum with the apex pale.

Connexivum spotted with black. Antennæ: first joint pale, the rest black, narrowly pale at their bases.

Length 6 lines.

Common by sweeping, &c.

3. *vernale*, Wolff. Fig. Panz. Faun. Germ. 113—6.

Greenish-brown; closely punctured with black punctures. Legs and underside very shortly pubescent; sides of the thorax and apex of scutellum narrowly pale. Connexivum scarcely projecting beyond the elytra; black, with narrow, pale, transverse spots. Antennæ: first three joints pale; fourth and fifth black at the apex.

Length  $4\frac{1}{2}$  lines.

Very rare; Weston-super-Mare.

4. *juniperinum*, Linn. Fig. Panz. Faun. Germ. 33, 14.

Green, rather dark; sides of the thorax and the apex of the scutellum pale. Elytra narrowly pale behind the shoulders. Connexivum scarcely visible. Surface densely punctured. Scutellum and thorax in front transversely rugose. Antennæ black at the apex; legs the same colour as the body.

Length  $5\frac{1}{2}$  lines.

Jumpers; Mickleham, Caterham, &c.

5. *viridissima*, Poda. Fig. (*dissimile*) Dougl. & Scott, Brit. Hem. pl. iii. fig. 1.

Paler green than the last; flatter. Connexivum projecting considerably. Body above entirely green; the apex of the scutellum alone slightly paler. Beneath: legs and antennæ pale; apical joint of the latter and a band on the fourth nearly black.

Length  $5\frac{1}{2}$ —6 lines.

Not uncommon, by sweeping, &c.

#### PIEZODORUS.

1. *lituratus*, Fab. Fig. (*purpureipennis*) Dougl. & Scott, Brit. Hem. pl. iii. fig. 9.

Green; base of the thorax, clavus and corium, except the exterior margin, often red or purplish. Antennæ reddish. Beneath pale green. Surface regularly punctured with round black punctures; posterior angles of the thorax obtuse, not produced. Connexivum pale. Abdomen above black.

Length  $5\frac{1}{2}$ —6 lines.

Common, by sweeping, &c., especially on furze.

## ACANTHOSOMA.

- I. Hind angles of thorax not produced and pointed.
- A. Connexivum spotted with black .. .. *griseum*.
- AA. Connexivum not spotted with black.
- a. Membrane extending much beyond the apex of the body.. .. *dentatum*.
- b. Membrane extending very little beyond the apex of the body .. .. *tristriatum*.
- II. Hind angles of thorax produced and pointed .. *hæmorrhoidale*.
1. *griseum*, Lin. Fig. (*agathinum*) Panz. Faun. Germ. 114, 10, 11.
- Ochreous or reddish-ochreous. Connexivum pale, with black spots; beneath pale. Surface very largely and irregularly punctured with black. Scutellum generally with a dark spot at the base. Connexivum sometimes red at the apex.
- Length  $3\frac{1}{2}$ —4 lines.
- Common on birches.
2. *dentatum*, De Geer. Fig. Panz. Faun. Germ, 115, 13, 14 (too highly coloured).
- Dirty yellowish-green; base of the thorax, clavus and corium internally red; beneath and legs yellowish; apex of body blood-red. Connexivum very narrow, pale. Antennæ pale at the base, apical half dark. Surface roundly punctured with black all over.
- Length 4 lines.
- Not uncommon on birches.
3. *tristriatum*, Fab. Fig. (*pictum*) Dougl. & Scott, Brit. Hem. pl. iv. fig. 2.
- Bright pale green. Elytra with the clavus and the corium, within the nerve, blood-red; hind angles of the thorax and the extreme apex of the connexivum of the same colour. Apex of the scutellum and a spot at each basal angle pale. Thorax roughly punctured in front, rather finely behind. Elytra finely, scutellum largely punctured; punctures not black.
- Length 4 lines.
- On junipers; local; Boxhill, &c.
4. *hæmorrhoidale*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 1.
- Of a lurid ochreous colour, or greenish; much larger than any of the preceding. Thorax strongly angulated at the sides; angles more or less red, with the apex black;

punctuation of the surface close, irregular and black. Scutellum with large remote punctures. Elytra very densely punctured, generally of a browner tint than the scutellum. Beneath ochreous, apex red.

Length 7 lines.

On birches in the autumn.

#### PICROMERUS.

1. *bidens*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. ii. fig. 7.

Brown, apex of scutellum narrowly pale; connexivum obscurely spotted with red; legs and antennæ orange-red; beneath dull red, punctured with brown; surface deeply punctured; scutellum transversely rugose; each posterior angle of the thorax produced into a sharp spine; sides anteriorly roughly denticulate.

Length  $5\frac{1}{2}$  lines.

Not uncommon.

#### TROPICORIS.

1. *rufipes*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iii. fig. 8.

Bronzy-brown; antennæ and legs red, the apex of the former brown; beneath red, punctured with black; apex of scutellum red; connexivum with green metallic spots; anterior angles of the thorax acute; posterior angles much produced, rounded, with a short, sharp point posteriorly; surface deeply and closely punctured with darker brown.

Length 7 lines.

Common on trees, &c.

#### COREIDÆ.

- I. Apical joint of antennæ never much longer, generally much shorter than third.
- A. Body not elongate, and linear.
  - B. Head without processes or spines outside the antennæ (*i.e.* between them and the eyes).
    - C. Head not spinous between the antennæ .. *Gonocerus*.
  - CC. Head spinous between the antennæ.
    - a. Head with one spine .. .. *Verlusia*.
    - b. Head with two spines .. .. *Syromastes*.
  - BB. Head with processes or spines outside the antennæ, as well as sometimes between them.
    - C. Sides of thorax much raised and reflexed posteriorly .. .. *Coreus*.

- CC. Sides of thorax not much raised and reflexed posteriorly.
- D. Second joint of antennæ much shorter than third.
- E. Hind thighs not spined.
- a. Antennæ not very rugose; second joint about half as long as third .. .. *Atractus*.
- b. Antennæ very rugose; 2nd joint not one fourth so long as the third .. .. *Pseudophleus*.
- EE. Hind thighs spined beneath .. .. *Bathysolen*.
- DD. Second and third joints of antennæ subequal.
- E. Hind thighs spined beneath.
- a. Entire insect covered with long projecting hairs .. .. *Dasycoris*.
- b. Insect without projecting hairs .. .. *Ceraleptus*.
- EE. Hind thighs not spined.
- a. Bright red, with black spots .. .. *Therapha*.
- b. Dull ochreous-brown, or flavous .. .. *Corizus*.
- AA. Body elongate, and linear.
- a. Basal joint of tarsi about as long as the other two together .. .. *Myrmus*.
- b. Basal joint of tarsi twice as long as the other two together .. .. *Chorosoma*.
- II. Apical joint of antennæ much longer than third.
- a. Posterior thighs spined beneath .. .. *Alydus*.
- b. Posterior thighs not spined .. .. *Stenocephalus*.

## GONOCERUS.

1. *venator*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 5.

Reddish-brown; legs slightly paler; terminal joint of antennæ and apex of third joint sometimes darker. Surface regularly punctured with black; thorax much raised posteriorly and produced on each side to a somewhat sharp angle. Connexivum with a paler band on each segment.

Length 6 lines.

On box trees, Boxhill.

## VERLUSIA.

1. *rhombea*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 6.

Ochreous-brown; second and third joints of antennæ reddish, apical joint dark. Entire insect punctured with black; sides of thorax narrowly pale, produced posteriorly in an obtuse angle just above the base. Connexivum

much produced on each side and sharply angulated in the middle.

Length 5 lines.

Not rare.

#### COREUS.

1. *scapha*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 4.

Dark brown, rugosely punctured with black. Head on each side with a spine outside the antenna; sides of the head in front of the eyes parallel, narrowly pale. Thorax concave, with a sharp projecting angle at each side in front. Sides narrowly pale in front, much raised, dilated and rounded posteriorly; sides of the elytra slightly rounded. Connexivum with a small, external, transverse, pale spot on each segment. Beneath ochreous, punctured with black.

Length  $5\frac{1}{2}$ —6 lines.

Local, but not rare on *Ononis*, &c.; usually on the coast.

#### SYROMASTES.

1. *marginatus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 3.

Brown, rugosely and regularly punctured with black. Head with two converging rugose spines between the eyes. Thorax very wide behind, and its sides broadly angulated posteriorly, anterior margin the same width as the head. Elytra subparallel; connexivum much produced, its sides rounded; each segment with a paler round spot inwardly. Beneath with a pale round spot on the side of each abdominal segment.

Length 6— $6\frac{1}{2}$  lines.

Common by sweeping, &c.

#### ATRACTUS.

1. *Dalmanii*, Schill. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 8.

Chocolate-brown, head with numerous tubercles. Thorax rugose, with the sides in front pale, and with two longitudinal rugosities on the disk. Scutellum impressed, with a central keel and a velvety spot on each side of it. Elytra rugose; connexivum regularly rounded.

Length 3 lines.

Weybridge; Reigate; in sandy places.

## PSEUDOPHLÆUS.

1. *Fallenii*, Schill. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 9.

Pale ochreous or brown. Head and thorax rugose, the latter with two elevated longitudinal ridges, sides emarginate, irregularly spined, especially in front. Scutellum with a pale central keel. Elytra very largely punctured in lines. Connexivum transversely banded with darker brown; beneath varied with brown.

Length 3—3½ lines.

Under *Erodium*; common at Deal and elsewhere.

## BATHYSOLEN.

1. *nubilus*, Fall. Fig. Hahn, Wanz. Ins. fig. 191.

Shorter and stouter than the preceding. Dark brown, head and thorax rugose, sides of the latter reflexed, irregularly dentate; disk flat, without longitudinal ridges. Elytra punctured and finely granulated, posterior thighs with two small spines beneath.

Length 3 lines.

Very rare; Deal.

## DASYCORIS.

1. *hirticornis*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. iv. fig. 7.

Chocolate-brown. Entire insect more or less hairy. Lateral margins of thorax very narrowly white, with long white teeth. Connexivum with lighter transverse bars. Hind thighs with several teeth.

Length 5 lines.

Not uncommon by sweeping, &c.

## CERALEPTUS.

1. *lividus*, Stein. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 1 (*squalidus*).

Pale ochreous-brown. Second joint of antennæ and part of third red, apex darker; thorax rugose, sides and base dark; elytra finely and regularly rugose, lateral margins in front pale; connexivum elevated, regularly rounded, with a pale band at each segment; beneath and legs ochreous; hind femora dark at the apex and toothed.

Length 5 lines.

Rare; Deal.

## THERAPIA.

1. *hyoscyami*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 2.

Bright red. Sides and back of head, a band across the front of thorax and a spot on each side of its base, base of scutellum, clavus, and a spot on each clytron, legs and antennæ, black; beneath red, with a row of black spots on each side. Entire insect slightly hairy and punctured.

Length  $4\frac{1}{2}$  lines.

Not uncommon in the South-West of England, by sweeping.

## CORIZUS.

- I. Upper surface of abdomen black, with pale spots.

A. 4th abdominal segment above angularly cut out in the centre posteriorly.

1. 5th abdominal segment with two converging yellow lines, forming an inverted V; apical segment black, with two pale longitudinal stripes .. .. *crassicornis*.

2. 5th abdominal segment with two parallel yellow lines; apical segment white, with a dark central line .. .. *abutylon*.

AA. 4th abdominal segment not angularly incised posteriorly, although somewhat emarginate.

1. Tibiæ barred and spotted with black .. *parumpunctatus*.

2. Tibiæ not barred or spotted .. *capitatus*.

- II. Upper surface of abdomen yellow, with black spots.. *maculatus*.

1. *crassicornis*, Linn. Fig. Pans. Faun. Germ. 92, 18.

Dark greyish-brown. Thorax deeply punctured, with the lateral margins and a narrow dorsal line slightly raised and paler; corium somewhat transparent, the nerves sometimes spotted with black; connexivum flavous, barred with black; abdomen beneath pale, above black, with a  $\Lambda$ -shaped spot on the 4th and 5th segments, and a longitudinal line on each side of the apical segments, flavous.

Length  $3\frac{1}{2}$  lines.

Rare; Charlwood, Surrey, by sweeping in the autumn, several specimens; also at Dorsetshire (Dale).

2. *abutylon*, Rossi.

Pale ochreous, sometimes darker. Connexivum pale, with a black spot on each segment; abdomen above with its apical segment pale, except a dark line down its middle.

Length 4 lines.

Deal and Bournemouth.

A stouter and paler insect than the preceding, but I much doubt its being really distinct. I have a long series



of both species from abroad, containing specimens which it would be very difficult satisfactorily to determine under which name they should be placed. The markings on the abdomen seem to be very variable.

3. *maculatus*, Fieb. Fig. H.-Seff. Wanz. Ins. fig. 559.

Orange-yellow. Thorax very deeply punctured, dorsal line narrowly raised; nerves of the corium spotted with black; connexivum spotted with black. Abdomen above orange-yellow, with black spots at the sides and a black line down the middle of the apical segment; hind thighs not thickened.

Length 4 lines.

New Forest.

The uniform colour and the orange upper surface of the abdomen at once distinguish this species.

4. *capitatus*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 3.

Head, thorax and scutellum dark orange-coloured, the latter with its apex whitish; corium transparent in front, orange-red near the apex, nerves spotted with black. Connexivum barred alternately with dark brown and ochreous. Upper surface of abdomen black, with some yellow spots near the base; the apical segment pale, with the centre black. Tibiæ pale, with irregular brown rings.

Length  $3\frac{1}{2}$  lines.

Occasionally by sweeping.

5. *parumpunctatus*, Schill. Fig. Panz. Faun. Germ. 117, 10.

Ochreous-brown, occasionally with a reddish tinge. Thorax punctured. Nerves of the corium reddish. Connexivum pale, sometimes with small round black spots. Abdomen above black, with an elongate spot on the 3rd and 4th segments, two small ones on the 5th, and a line on each side of the centre of the apical one, yellow.

Length  $3\frac{1}{2}$  lines.

Occasionally by sweeping; abundantly at the roadside near Bournemouth.

#### MYRMUS.

1. *miriformis*, Fall. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 4.

Elongate, depressed. Head and thorax brown or greenish-brown, the sides of the latter paler. Elytra

brownish, the margins pale green. Antennæ covered with bristly hairs; legs pale.

Length 5 lines.

Not uncommon on heaths by sweeping.

A variable species in colour, and often found with the elytra undeveloped.

#### CHOROSOMA.

1. *Schillingi*, Schml. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 5.

Linear, very elongate, pale ochreous; elytra not reaching to the apex of the abdomen. Abdomen above with a dark stripe down each side, which does not reach the apex. Apex of posterior tibiæ and all the tarsi brown.

Length 6—8 lines.

Deal and Lowestoft; by sweeping.

#### ALYDUS.

1. *calcaratus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 7.

Elongate, black, hairy; first three joints of antennæ partly pale. Thorax flat on the disk, wider at the base than the elytra. Scutellum with its extreme apex pale. Connexivum with yellowish-white spots. Legs and tibiæ yellowish, base and apex darker. Tarsi: first joint at base yellow, rest black; posterior thighs with several spines.

Length  $5\frac{1}{2}$  lines.

Not rare in autumn, on *Sarothamnus* and *Ononis*.

#### STENOCEPHALUS.

- I. 2nd joint of antennæ with a black central band .. .. *agilis*.  
 II. 2nd joint of antennæ entirely pale.. .. *neglectus*.

1. *agilis*, Scop. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 6.

Brown, punctured. Antennæ: first joint brown, 2, 3 and 4 flavous, with the apex of each and a ring in the middle of the 2nd brown. Thorax with nearly straight sides, much wider behind than in front. Scutellum with the extreme apex white. Elytra with a small whitish spot on each just above the membrane. Connexivum yellow, barred with black; legs yellow; apex of thighs of two

hind pairs and whole of front thighs, apex of all the tibiæ, and the tarsi, brown. Beneath brown.

Length 6 lines.

Not uncommon; in profusion near Dawlish in Sept. 1871.

2. *neglectus*, H.-Scff. Fig. H.-Scff. Wanz. Ins. iii. fig. 272.

Extremely like the preceding, but narrower and more parallel; 2nd joint of antennæ without a band in the middle.

Length 6 lines.

Rare; coast of Devonshire.

Although this is generally admitted as a species, I can hardly believe it to be distinct.

### BERYTIDÆ.

- I. Forehead not produced between the antennæ into a long narrow point.
- a. Apical joint of antennæ as long as the 2nd joint or nearly so .. .. . *Metatropis*.
  - b. Apical joint of antennæ not nearly so long as the 2nd .. .. . *Metacanthus*.
- II. Forehead produced between the antennæ into a long narrow point.
- a. 2nd joint of antennæ not so long as the apical club .. .. . *Berytus*.
  - b. 2nd joint of antennæ much longer than apical club .. .. . *Neides*.

### METATROPIS.

1. *rufescens*, H.-Scff. Fig. Dougl. & Scott, Brit. Hem. pl. v. fig. 2.

Rufescent, punctured. Thorax much raised posteriorly, with the sides and dorsal line strongly carinated. Legs and antennæ very long and fine, paler than the body, sub-transparent, irregularly spotted with brown and with a wide brown band just below the apex of each femur. Antennæ with its apical joints, and a band near the apex of the 1st joint, brown.

Length 4 lines.

Rare; Southsea; Pangbourn.

### METACANTHUS.

1. *punctipes*, Germ. Fig. Dougl. & Scott, Brit. Hem. pl. 5, fig. 8.

Pale ochreous. Head black. Thorax with a band in

front and the hind angles black, and with a brown tubercle just above the scutellum. Scutellum with an elongate curved spine at its base. Membrane very large and hyaline. Legs and antennæ very thin and long, banded with brown. Apical joints of latter black.

Length 2—2½ lines.

Common on *Ononis*.

## BERYTUS.

I. Membrane as wide or wider than the corium.

A. Apex of 1st joint of antennæ not black, although darkened.

a. Membrane largely rounded .. .. *montivagus*.

b. Membrane narrowly rounded .. .. *pygmaeus*.

AA. Apex of 1st joint of antennæ black .. .. *cognatus*.

II. Membrane narrower than the corium.

A. Club of 1st joint of antennæ scarcely darkened *clavipes*.

AA. Club of 1st joint of antennæ black, or nearly so.

a. Thighs much thickened and black at the apex .. .. *crassipes*.

b. Thighs not much thickened, dusky at apex *minor*.

### 1. *montivagus*, May.

Elongate, ochreous, widest at the membrane, which is irregularly and clearly marked with dark brown. Thorax punctured, finely in front, coarsely behind, with the sides and dorsal line strongly carinated. The lateral carinae are not so strong as in the other species. Apex of corium black. Antennæ and legs long, the apex of 1st joint of the former thickened and brown; apex of the others brown; terminal joint black, club-shaped and hairy.

Length 3—3½ lines.

Not uncommon in moss, &c.

### 2. *pygmaeus*, Reut.

*Signoretii*, Dougl. & Scott.

Elongate, ochreous, membrane not wider than the corium across the middle, but very nearly of the same width. Process between the eyes produced and pointed in front. Thorax narrower than in the preceding, very flat from a sideways view, with the dorsal line and sides carinated; apex of corium brown; membrane with very slight brown markings; club of the 1st joint of antennæ hardly darkened; knees pale.

Length 2½ lines.

In moss; widely distributed, but not common.

3. *cognatus*, Fieb.

Larger than the preceding, and distinguished at once from it and *montivagus* by the black club to the 1st joint of antennæ. Frontal process shorter and less attenuate. Thorax wider behind and more raised. Apex of the thighs slightly more thickened and somewhat darkened. Membrane with distinct brown markings.

Length 3 lines.

In moss, &c.; Reigate, Dartford, &c., &c.

4. *clavipes*, Fieb. Fig. Hahn, Wanz. Ins. i. fig. 69.

Very elongate and narrow, ochreous; membrane much narrower than the corium. Frontal process much produced and attenuate. Club of 1st joint of antennæ slightly darkened; apical joint black. Thorax tricarinate; the carinæ subparallel; extreme apex of corium brown; legs very long; knees scarcely darkened. Can only be confounded with *minor*, from which it is easily separated by its larger size, longer thorax, narrower membrane, longer legs and much produced frontal process.

Length 3 lines.

In moss; not common.

5. *crassipes*, H.-Seff. Fig. Fieb. Beitr. i. t. ii. fig. 28.

Short and somewhat stout for a member of this genus, ochreous, frontal process not much produced. Thorax tricarinate; apex of corium brown-black; membrane clouded with brown. Apex of 1st joint of antennæ strongly clubbed, black; also apices of 2nd and 3rd joints and the whole of the apical joint black. Knees much thickened, widely black.

Easily separated from all the other species by the short thick form, and the thick black knees.

Length 2—2½ lines.

Moss; Mickleham, Bexley, &c.; rare.

6. *minor*, H.-Seff. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 1.

Larger and narrower than the preceding, ochreous; frontal process produced and somewhat pointed. Thorax tricarinate. Antennæ with the club of 1st joint brown-black; apex of 3rd joint and the whole of the apical black. Knees thickened, infuscated, but sometimes scarcely darker than the rest of the thighs. Membrane with brown markings. The commonest species.

Length 2½—3 lines.

Common in moss.

## NEIDES.

1. Thorax posteriorly widened and raised .. .. *tipularius*.  
 2. Thorax posteriorly not widened or raised .. .. *parallelus*.

1. *tipularius*, Linn. Fig. Hahn, Wanz. Ins. i. fig. 68.

Very long and narrow, with exceedingly long thin legs, ochreous. Thorax convex, widened and much raised posteriorly, tricarinate. Corium with several black spots along the edge of the membrane. Thighs and 1st joint of antennæ club-shaped and slightly darkened. Apex of antennæ black. Apex of tibiæ and the tarsi black.

Length  $5\frac{1}{2}$ —6 lines.

Bournemouth, Woking; by sweeping, &c.

2. *parallelus*, Fieb.

*depressus*, Dougl. & Scott.

So like the preceding that I need only point out the differences. The thorax is smaller, not raised posteriorly nor widened, the three carinæ being as nearly parallel as possible; it is also not convex as in *tipularius*. This insect is considered by Dr. Renton to be the unwinged form of *N. tipularius*.

Length  $5\frac{1}{2}$  lines.

Deal.

## PYRRHOCORIDÆ.

## PYRRHOCORIS.

1. *apterus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 3.

Above flat, irregularly punctured, scarlet. Head and antennæ, centre of thorax (dorsal line sometimes excepted), scutellum, clavus, a very small black spot near each shoulder, and a round spot on the disk of the corium and the abdomen, except at its margins, black. Legs also black. Beneath black; margins of body and various spots on the thorax red.

Length  $3\frac{1}{2}$ — $4\frac{1}{2}$  lines.

S. W. of England.

## LYGÆIDÆ.

I. Basal joint of hind tarsi generally much longer, never shorter than 2nd and 3rd together.

A. Species very flat and wide, much dilated posteriorly .. .. *Gastrodes*.

AA. Species not much flattened and dilated.

B. Sides of the thorax without a well-defined lateral margin.

- C. Thorax constricted in the middle in a waist-like manner .. .. . *Placiomcrus*.
- CC. Thorax not constricted in the middle in a waistlike manner.
- a. Head exceedingly wide, eyes longly pedunculate .. .. . *Heneslaris*.
- b. Head not so wide, eyes not pedunculate .. *Nysius*.
- BB. Sides of the thorax with a well-defined lateral margin.
- C. Membrane without cells.
- D. Side margins of thorax foliaceous, or with a sharp leaf or knife-like edge throughout their length, often wider and pale near the middle, never thickened or narrowly reflexed.
- E. Thorax with long hairs all over or only round the front margin .. .. . *Eremocoris*.
- EE. Thorax without long hairs.
- F. Front margin of thorax constricted into a very short, sometimes raised collar.
- a. 1st joint of antennæ as long as second .. *Notochilus*.
- b. 1st joint of antennæ much shorter than 2nd .. .. . *Scolopostethus*.
- FF. Front margin of thorax not collared or raised.
- G. Basal joint of intermediate tarsi longer than 2nd and 3rd together.
- II. Eyes prominent, projecting beyond the sides of the thorax .. .. . *Dieuches*.
- HH. Eyes not prominent.
- I. Antennæ covered with bristly black hairs .. *Emblethis*.
- II. Antennæ not covered with bristly hairs .. *Calyptonotus*.
- GG. Basal joint of intermediate tarsi shorter than 2nd and 3rd together .. .. . *Trapezonotus*.
- DD. Side margins of thorax not flattened or leaf-like, often raised or reflexed or thickened.
- E. Sides without lateral carinæ .. .. . *Tropistethus*.
- EE. Sides with lateral carinæ.
- F. Lateral carinæ visible from above.
- G. Species linear, parallel sides (clytra almost always undeveloped).
- a. 3rd joint of rostrum as long, or nearly as long, as 2nd; 2nd and 3rd abdominal segments above much and angularly produced posteriorly; the apex of the angle widely truncate .. .. . *Macrodemis*.
- b. 3rd joint of rostrum much shorter than 2nd and 3rd, abdominal segments very slightly angulated, the apex of the 2nd very finely truncate .. .. . *Ischnocoris*.
- GG. Species not linear and parallel-sided.
- II. Thorax more or less constricted (although sometimes very slightly) at or behind the middle, transversely impressed and punctured.

- I. Apical joint of antennæ shorter than 2nd.
- J. Entire insect covered with projecting hairs .. *Pionosomus*.
- JJ. Not covered with projecting hairs.
- K. Thorax in front very shining and polished .. *Lamproplax*.
- KK. Thorax in front not shining and polished .. *Drymus*.
- II. Apical joint of antennæ as long or longer than 2nd .. .. . *Rhyparochromus*.
- III. Thorax not constricted posteriorly.
  - a. Species not flattened or shining .. .. *Peritrechus*.
  - b. Species flattened, smooth and shining .. *Plinthisus*.
- FF. Lateral carinæ not visible from above.
- G. Anterior margin of thorax raised .. .. *Lasiosomus*.
- GG. Anterior margin of thorax not raised.
  - II. Surface not pubescent .. .. . *Acompus*.
- III. Surface pubescent .. .. . *Stygnocoris*.
- CC. Membrane with basal cells .. .. . *Phygadicus*.
- II. Basal joint of hind tarsi shorter than 2nd and 3rd together.
  - A. Sides of thorax not thin and knife-like.
  - B. Base of thorax emarginate .. .. . *Ischnodemus*.
  - BB. Base of thorax not emarginate.
    - C. Head without processes between the antennæ and eyes .. .. . *Ischnorhynchus*.
    - CC. Head with processes between the antennæ and eyes .. .. . *Cymus*.
  - AA. Sides of thorax with a knife-like edge .. *Chilacis*.

## GASTRODES.

- I. Lateral margin pale and knife-like only posteriorly .. *ferrugineus*.
  - II. Lateral margin pale and knife-like throughout its length .. .. . *abietis*.
1. *ferrugineus*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 4.
- Much depressed and dilated; dull brownish-red, head and front of thorax black, the latter largely and irregularly punctured, much wider behind than in front. Elytra widest about the middle, punctured in irregular lines. Legs red. Anterior thighs darker, thickened and denticulate on their front margin, with one larger spine in the middle. Antennæ red-brown; 2nd joint rather paler than the rest.
- Length  $3\frac{1}{2}$  lines.
- Not uncommon on fir trees.
2. *abietis*, Linn. Fig. Panz. Faun. Germ. 92, 22.
- Very like the preceding, but differs in being paler and rather narrower; the front part of the thorax is highly



polished, with only a few scattered punctures at the sides, and the entire lateral margin is pale and sharply carinated; the elytra are of a pale brown, with an elongate dark spot running from the membrane upwards along the juncture of the corium and clavus, also the front thighs are not darkened.

Length  $3\frac{1}{2}$  lines.

Very rare; on spruce firs.

### PLOCIOMERUS.

- I. Thorax hardly swollen in front, pale behind and scarcely pilose .. .. . *fracticollis*.  
 II. Thorax very much swollen in front, entirely dark and densely pilose .. .. . *luridus*.  
 1. *fracticollis*, Schill. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 5.

Ochreous-brown. Head and front half of thorax, except the anterior margin, black; base of the latter punctured with dark brown, and with a dark-brown cloud within each angle, the angles themselves pale; sides converging in the middle so as to form a sort of waist; scutellum brownish-black; clavus and corium pale, punctured with brown in lines; the nervures, margins, and a triangular spot on the corium on each side near the base of the membrane, pale ochreous-white. Membrane dusky, nerves paler, beneath black. Antennæ reddish-brown; apical joint darker. Legs clear testaceous-brown, hind thighs with a darker ring near the apex.

Length  $2\frac{1}{2}$ —3 lines.

Not rare in the Fens, Cambridgeshire.

2. *luridus*, H.-Scff. Fig. H.-Scff. Wanz. Ins. fig. 356.  
 Reddish-brown. Head and thorax entirely very dark brown, the latter much swollen in front and much constricted in the middle, covered with dense fine hairs. Scutellum black. Elytra punctured with brown punctures in lines, darker towards the apex; membrane dusky, nerves pale; legs reddish-brown, the front ones with the centre of the femora dark. Antennæ reddish-brown.

Length 3 lines.

New Forest.

Shorter than the preceding, and at once distinguished by the swollen thorax in front and its hairy nature.

## HENESTARIS.

1. *laticeps*, Curt. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 5.

Head ochreous, spotted with black, exceedingly wide. Eyes pedunculate. Thorax punctured, pubescent, ochreous, more or less marbled longitudinally with shades of brown; dorsal line and lateral margins posteriorly paler. Scutellum reddish-brown, with a white silvery spot on each side of the base. Elytra punctured, clavus pale ochreous, punctured in lines, corium more or less ochreous at the base, reddish-brown posteriorly, with a small white spot near its interior apical angle. Membrane white. Nerves brown, the intervals between them finely and closely spotted with brown, especially towards the middle of the membrane, giving the appearance of a brown central stripe. Legs spotted with black, largely on the femora, finely on the tibiæ. Antennæ with the basal joint spotted; apical joint dusky.

Length  $2\frac{1}{2}$ —3 lines.

*Hab.*—Sea shore; Dawlish, &c.

## NYSIUS.

- I. Scutellum with a pale central keel .. .. *brunneus*.  
 II. Scutellum without a pale keel .. .. *thymi*.

1. *brunneus*, Fieb. = *Scotti*, E. S.

Ochreous. Head and thorax deeply punctured, the former with a blackish line on each side inside the eyes, the latter with a narrow, pale, dorsal line. Scutellum largely punctured, with a strong, smooth, pale, longitudinal carina. Elytra: disk unspotted, apical margin more or less brown, especially at the apex of the corium itself. Membrane hyaline, clouded with brown. Antennæ: 1st joint spotted with brown, apical joint dusky; legs and thighs finely spotted with brown.

Length  $2\frac{1}{2}$  lines.

*Hab.*—Heaths; Woking, Reigate, Weybridge, Bournemouth, &c.

2. *thymi*, Wolff. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 4.

Of a greyer colour than the preceding. Head nearly black, covered with exceedingly fine silvery hairs, deeply punctured. Thorax deeply punctured, dark in front,

with indications of a raised dorsal line at the base and at the anterior margin; posterior angles pale. Scutellum black or dark brown, sometimes with a streak on each side paler, deeply punctured. Elytra greyish-ochreous, more or less spotted on the nerves. Apical margin narrowly and interruptedly black. Membrane hyaline, clouded with brown. Antennæ obscure brown, 1st joint and apical joint darker. Thighs spotted with brown, varying much in the closeness and contiguity of the spots. Beneath sometimes ochreous, with a wide band on each side dark, sometimes almost black all over.

Length 2 lines.

Common in heathy places.

The form called by Messrs. Douglas and Scott *maculatus*, Fieb., I cannot consider as more than a dark variety of this very variable species.

#### EREMOCORIS.

1. *podagricus*, Fab.

*erraticus*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 7.

Elongate-oval. Head and antennæ black. Thorax black, finely punctured and convex in front, brown, impressed and deeply punctured behind; sides pale. Scutellum black, deeply punctured. Elytra punctured, dull lightish-brown, a spot in the middle of each black; the anterior margin of the corium and the base of the elytra are usually more or less pale; membrane blackish, with a white spot on each side and pale nerves. Beneath black; coxæ and sides of mesosternum reddish. Legs reddish-brown; thighs darker.

Length 3 lines.

On junipers; Sanderstead, Reigate, Headley, &c.

2. *plebeius*, Hahn. Fig. Hahn, Wanz. Ins. i. fig. 33.

Brownish-black, dull. Thorax deeply and sparsely punctured behind; lateral margins dull red, surface covered with long projecting hairs, especially in front. Scutellum deeply punctured. Elytra reddish-brown at the base, clouded with dark brown posteriorly, with a small, long, black spot in the middle of each corium. Membrane black, with a white spot on each side. Beneath and legs black; tibiæ reddish-brown. Femora pilose.

Length 3 lines.

New Forest.

Its dull appearance and the hairs on the thorax and legs at once separate this from *podagricus*.

#### NOTOCHILUS.

##### I. *limbatus*, Fieb. *Scolop. crassicornis*, Dougl. & Scott.

Ferruginous; head and front of thorax fuscous; base and hind angles also dark; elytra with a broad black band across the middle; apical margin also narrowly black. Membrane dusky, with a pale streak on each side. Antennæ thick; 1st joint red, the rest black. Legs red; apices of the thighs narrowly black.

Length  $1\frac{1}{2}$  line.

Southsea.

#### SCOLOPOSTETHUS.

##### I. Thorax dark in front, pale behind.

A. Antennæ entirely pale.. .. *pictus*.

B. Antennæ with 1st and 2nd joints pale, rest black.. .. *adjunctus*.

C. Antennæ with only the base of the 2nd and 1st pale—

a. Elytra finely hairy .. .. *affinis*.

b. Elytra glabrous .. .. *ericetorum*.

##### II. Thorax dark all over .. .. *contractus*.

##### 1. *pictus*, Schill. Fig. Panz. Faun. Germ. 120—5.

Head black; thorax much wider behind than in front, ochreous-brown, punctured with darker brown, with the anterior margin narrowly red, and with a large quadrangular brown spot on its anterior half; lateral margins white, the white colour widening about the middle; posterior angles dark brown; there is also a brownish cloud above the scutellum which is black. Elytra ochreous, with occasional lines of brown punctures; apex of clavus, two spots on the corium side by side, one on the disk, the other on the lateral margin, and a broad band across the end, jagged on its upper margin, dark brown. Membrane white; a spot at the base and the nerves brown. Antennæ and legs testaceous; front femora and a ring on the hind femora brown.

Length 2 lines.

Fens, Cambridgeshire, &c.; rare.

##### 2. *adjunctus*, D. & S. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 9.

I need hardly describe this, as the preceding is similar in almost every point except the following:—Thorax

proportionately wider in front; antennæ more robust; 3rd and 4th joints thickened and black; posterior thighs entirely pale; membrane rudimentary.

Length  $1\frac{3}{4}$  line.

Not uncommon in dry and sandy places. Var. *prec.*?

3. *affinis*, Schill. Fig. Hahn, Wanz. Ins. fig. 71 (*decoratus*).

A smaller insect than the preceding. Antennæ black except the 2nd joint, which is black only at its apex, and the 1st joint in the ♂. Elytra finely pubescent. Legs reddish-testaceous; thighs, 1st pair with a wide central band, 3rd pair with a narrow band near the apex, the 2nd pair generally only with a spot.

Length  $1\frac{1}{2}$  line.

Generally distributed.

4. *ericetorum*, Letts.

Exceedingly like the preceding: differs in having the elytra glabrous, the antennæ less thick, and their 2nd joint black, except at the extreme base. The thighs of the 2nd pair of legs have also generally a black apical ring.

Length  $1\frac{1}{2}$  line.

Under heath; common.

5. *contractus*, H.-Scff. Fig. Wanz. Ins. iv. fig. 440.

Dull black. Thorax deeply and coarsely punctured; lateral margins in the middle ochreous. Corium with the base and a small spot on the margin near the apex ochreous. Antennæ and legs black; apex of thighs, tibiae and tarsi slightly paler.

Length  $1\frac{1}{2}$  line.

Common in moss, &c., almost everywhere.

#### DIEUCHES.

1. *luscus*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 8.

Head black, covered with fine silvery hairs. Thorax in front with a black quadrangular spot. Anterior margin and sides white, posterior portion of thorax whitish, punctured with large brown punctures, posterior angles black. Scutellum with a spot on each side and the apex white. Clavus punctured with brown, and with a brown cloud-like spot near its middle. Corium whitish, punctured with brown in lines, except outwardly; a spot on

each running from their juncture with the membrane to the exterior margin, and another at the apex, black, the space between these forming a conspicuous white spot. Membrane nearly black, with a spot on each side below the apex of the cuneus. Legs yellow; apex of thighs widely and of tibiae narrowly black. Antennae yellow; 1st joint, apex of 2nd and 3rd, and nearly the whole of 4th, black.

Length  $2\frac{3}{4}$  lines.

West of England, Lizard, Torquay, &c.

#### EMBLETHIS.

1. *verbasci*, Fab. Fig. Panz. Faun. Germ. 118—7  
(*marginipunctatus*).

Oval; ochreous, covered with black punctures and larger puncture-like spots round the margins. Head and antennae with short bristly hairs. Sides of thorax regularly rounded. Scutellum with two black spots near each anterior angle. Membrane spotted with dusky spots and with a black spot on each side of the base. Underside of thorax and sternum black, the latter with the posterior margin of each segment whitish; body ochreous-yellow, with a row of black spots along its margins.

Length 3 lines.

Deal.

#### CALYPTONOTUS.

- I. Species black; membrane with a yellow spot .. *Rolandri*.
- II. Species brown and black.
  - A. Hind thighs not toothed.
  - B. Side margins of thorax entirely widely pale.
    - a. Tibiae and tarsi black .. .. *lynceus*.
    - b. Tibiae and tarsi pale .. .. *quadratus*.
  - BB. Side margins of thorax not widely pale .. *pini*.
  - AA. Hind thighs with a very small tooth near the apex.. .. .. *pedestris*.

1. *Rolandri*, Linn. Fig. Panz. Faun. Germ. 118, 3.

Dull black, glabrous; punctured membrane with a large spot at its base, orange-coloured.

I have foreign examples, in which the membrane is entirely pale orange-coloured; but I have never seen this variety from England.

Length 3— $3\frac{1}{2}$  lines.

Darenth, &c.

2. *pini*, Linn. Fig. Dougl. & Scott, Brit. Hem. pl. vi. fig. 6.

Ochreous-brown, largely and irregularly punctured with black; elongate-oval. Head, front of thorax, scutellum, an elongate spot on the clavus, a somewhat triangular spot on each side just above the base of the membrane, the membrane itself, legs and antennæ, black; the front tibiæ reddish at their base.

Length  $3\frac{1}{2}$ —4 lines.

At the roots of heath, &c., in sandy places; not uncommon.

3. *lynceus*, Fab. Fig. Panz. Faun. Germ. 118, 10.

Broad, oval, ochreous; punctured with large black punctures. Head, a large quadrangular patch in the front of the thorax, and an irregular-shaped spot on each corium just above the membrane, black, the latter spot having a small round white spot in its apex, membrane brown; scutellum black, with an elongate ochreous spot on each side near the apex. Sides of thorax pale, translucent and impunctate. Legs and antennæ black, the front tibiæ pale, except at the apex; the other tibiæ pale at their extreme base; junctures of 1st and 2nd and 2nd and 3rd joints of antennæ also pale.

Length  $3\frac{1}{2}$  lines.

Rare; Deal, Dartford, Croydon, I. of Wight, at roots of grass.

4. *quadratus*, Fab. Fig. Panz. Faun. Germ. 118—9.

Elongate-oval, ochreous-brown, punctured with darker brown; sides of thorax and elytra impunctate, smaller than the preceding. Head, a quadrangular spot on the front of the thorax, scutellum, and a somewhat elongate spot on the corium on each side just above the membrane, black. Membrane pale, with a dark central streak. Femora black, with their extreme apices red. Tibiæ red, dusky at their extremities. Antennæ: 1st joint black, with its apex red, 2nd and 3rd dull red, dusky at the apex, terminal joint dusky.

Length 3 lines.

Rare; Llandudno.

5. *pedestris*, Panz. Fig. Panz. Faun. Germ. 92, 14.

Narrow for one of this genus. Bright orange-brown, punctured. Head, front of thorax, its posterior angles, a round spot on each corium behind the middle, black. A spot on each side of the thorax above the black angle, and one immediately below each spot on the corium, white.

Anterior margin of the corium, a streak on the clavus, and a streak on the disk of the corium, pale, but not quite white. Membrane black, with a white apical spot. Antennæ black, 2nd joint yellowish. Legs: front femora black, except at the base and apex, tibiæ yellow, black at apex; tarsi black, except 1st joint. Hind legs yellow, ends of the joints black, posterior thighs with a small tooth. Beneath black, with two or three white spots on the thorax, and a transverse white band on each side of the mesosternum.

Length  $2\frac{1}{2}$  lines.

Not common; on sandy banks and rotten trees, Chobham, Lee, Purley Downs.

#### TRAPEZONOTUS.

- I. Legs without spiny hairs .. .. . *distinguendus*.  
 II. Legs with spiny hairs .. .. . *agrestis*.

1. *distinguendus*, Flor. Var. *distinctus*, Dougl. & Scott.

Elongate-oval, depressed, ochreous-brown. Head bronzy, finely and closely punctured. Thorax black in front, covered with adpressed silvery hairs, posteriorly ochreous, largely punctured with black, lateral margins pale. Scutellum black, an elongate triangular spot on each side, and the apex yellowish. Elytra ochreous, punctured with black, darker towards the apex. Membrane dusky brown. Nerves interruptedly paler. Antennæ brownish-black, 3rd joint with a red central ring. Thighs black, apices pale, tibiæ and tarsi reddish, apex of latter darker.

Length 2 lines.

Rare; I. of Wight.

2. *agrestis*, Panz. Fig. Dougl. & Scott, Brit. Hem. vii. fig. 2.

Oval, ochreous, punctured with black. Head, front part of thorax and scutellum black. Thorax with the lateral margin entirely pale. Corium with an irregular dark spot on each side near the internal angle. Membrane dusky, nerves white. Antennæ black in the ♂, with the 1st joint yellow. Legs, ♂, 1st pair entirely yellow, hind pairs black, except the extreme apex of knees; ♀, front pair with the apex of knees and the tibiæ yellow, others as in ♂.

Length  $1\frac{1}{2}$  line.

Common in moss, &c., especially in sandy places.



## TROPISTETHUS.

1. *holosericeus*, Hahn. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 5.

Head, thorax, scutellum and antennæ dull black. Entire insect covered with fine, slightly projecting hairs. Elytra ochreous; a spot on each, just above the membrane and the exterior margin posteriorly, fuscous. Membrane whitish. Thighs testaceous-brown, paler at the apex; front pair with a row of small teeth below, tibiæ and tarsi pale testaceous.

Length 1 line.

Rare; Ventnor, South Devon, Buckland and Reigate Hills; at the roots of grass, in moss, &c.

## ISCHINOCORIS.

1. *hemipterus*, Sahlb. Fig. H.-Scff. Wanz. Ins. i. fig. 37 (*staphyliniformis*).

Elongate, parallel-sided, dull. Head black. Thorax nearly square, dull black, with a pale patch near each posterior angle punctured with black. Scutellum black, apex flavous. Elytra almost always rudimentary, pale ochreous, with lines of black punctures. Abdomen black, covered with fine depressed hairs. Antennæ brown; apex of 1st joint yellow; 2nd joint yellow, except at the base. Front thighs black, yellow at apex; tibiæ and tarsi testaceous; posterior legs testaceous, thighs with a black ring near the apex. This last character is very variable.

Length  $1\frac{1}{2}$  line.

Common in moss, &c., in heathy places.

I have a developed specimen of this species from abroad, in which the membrane is entirely dull fuscous.

## MACRODEMA.

1. *microptera*, Curt. Fig. Dougl. & Scott, Brit. Hem. vii. fig. 7.

Elongate, parallel-sided, shining. Head, thorax, except a transverse streak at the base, scutellum, abdomen, legs and antennæ, black, sometimes with a bronzy tinge. Streak at the base of the thorax and elytra ochreous-brown; the latter with rows of black punctures and a dark external spot near the apex. Head and thorax remotely punctured. Abdomen above finely and closely punctured on the first two segments that are visible below

the elytra, which are much and angularly produced in their centres, and truncate; remotely punctured on the other two segments. In the developed form the membrane is whitish with the centre clouded.

Length 2 lines.

Not uncommon in moss in heathy and sandy places.

#### PIONOSOMUS.

1. *varius*, Wolff. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 3.

Head and thorax black, punctured, covered with bristly hairs; the latter with two pale spots at the base. Scutellum black. Elytra dull ochreous, hairy, with lines of black punctures; on each side on the lateral margin are three brownish spots, a small one near the base, a larger transverse one in the middle, and a third at the apex of the corium. Membrane dusky, with a white spot at the base and another on each side below the apex of corium. Antennæ black; 2nd joint, except the apex, red; femora black; tibiæ red.

Length  $1\frac{1}{2}$  line.

Very rare; sandhills near Sandwich (Curtis).

#### LAMPROPLAX.

1. *piceus*, Flor. Fig. Dougl. & Scott, Ent. Mo. Mag. vol. iv. pl. ii. fig. 1 (*Sharpi*).  
= *Sharpi*, Dougl. & Scott.

Clear brown, shining. Thorax with a few scattered, long, upright hairs. Head, thorax and scutellum rather darker than the elytra. Thorax very shining and polished in front, and very coarsely punctured behind. Scutellum raised and coarsely punctured. Elytra punctured in lines on the clavus; corium with two parallel lines close to the clavus, and with some scattered punctures towards the lateral margin. Membrane more or less dusky. Legs clear testaceous-brown. Antennæ pitchy-brown, finely hairy; apical joint paler.

Length 2— $2\frac{1}{2}$  lines.

Scotland, New Forest, Wimbleton, Chobham; in damp places at the roots of plants, &c.

#### DRYMUS.

I. Legs without long projecting hairs.

A. Sides of thorax much rounded in front, and  
much constricted behind .. .. *brunneus*.

AA. Sides of thorax not much rounded in front,  
nor constricted.

a. Species short and robust; legs black .. *sylvaticus*.

b. Species subelongate; legs pitchy-brown .. *pilicornis*.

II. Legs with long projecting hairs on the tibiae .. *pilipes*.

1. *sylvaticus*, Fab. Fig. Hahn, Wanz. Ins. i. fig. 115.

Head, thorax, scutellum, antennæ and legs black. Thorax largely and coarsely punctured all over. Scutellum largely punctured, strongly impressed in the middle. Elytra ochreous-brown; first internal nerve of the corium black at its apex, whitish at its base; 2nd and 3rd nerves more or less darkened; external margin pale; membrane pale dusky-brown.

Length 2—2½ lines.

Very common.

Var. *Ryei*. Elytra chestnut-brown, wider posteriorly.

2. *brunneus*, Sahlb. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 4.

Head and thorax pitchy-black, very coarsely punctured; the latter with its sides rounded in front, and very much sinuated behind the middle; base rather paler than the front portion, impressed, and much more strongly punctured. Scutellum black. Elytra chocolate-brown; bases of the nerves and of the lateral margin, and a roundish spot between the 1st and 2nd nerves of the corium, pale ochreous; membrane dusky; nerves slightly paler. Antennæ and legs pitchy-brown; apex of former, tibiae and tarsi paler.

Length 2—2½ lines.

Not uncommon in dead leaves, &c.

3. *pilicornis*, Muls. = *latus*, Dougl. & Scott.

Dull chocolate-brown. Head, front part of thorax, scutellum, abdomen and antennæ, except the first joint, pitchy-black. Thorax much widened posteriorly; finely punctured in front, coarsely behind; lateral margins brown, slightly reflexed. Scutellum largely punctured, raised at the sides and impressed in the middle. Elytra deeply punctured in lines. Antennæ with long projecting hairs.

Length 3 lines.

Hurst, Sussex; in moss.

4. *pilipes*, Fieb.

Head, front of thorax, and sometimes the whole of it, scutellum and antennæ black. Thorax finely punctured

in front, and slightly sinuate at the sides; coarsely punctured behind, where it is of a piceous colour, as also on the lateral margins. Elytra chocolate-brown; suture between the clavus and corium, a short streak on the interior nerve, and the lateral margins at the base, pale; the pale streak on the inner nerve is followed by a longer black one. Membrane pale dusky, with a small black spot on the margin, below the apex of the second nerve of the corium; thighs black, except at the extreme apex; tibiæ piceous, with long projecting hairs.

Length 2—3½ lines.

*Hab.*—Moss; Croydon, Mickleham, Betchworth.

### RHYPAROCHROMUS.

#### I. Surface of thorax dull.

A. Species wide, black, or nearly so .. .. *dilatatus*.

AA. Species narrower; elytra with lighter markings.

a. Tibiæ black at apex .. .. *chiragra*.

b. Tibiæ entirely pale .. .. *sabulicola*.

#### II. Surface of thorax bright and shining.

a. Elytra glabrous, pale, with a black band at the apex .. .. *prætextatus*.

b. Elytra hairy, dark, somewhat paler at the base .. .. *antennatus*.

#### 1. *chiragra*, Fab. Fig. Panz. Faun. Germ. 122—8.

Entire insect clothed more or less with projecting hairs. Head, thorax and scutellum black; the latter with the sides rounded in front. Scutellum very largely punctured, triangularly raised at the base, with an impression within the raised portion. Elytra luteous; nerves and a large irregular-shaped spot towards the apex black. Antennæ black; 2nd joint red, except at its apex. Thighs black; red at the base; tibiæ red; black at the apex; tarsi reddish, dusky at the apex.

The markings of the elytra are very variable, and often the general colour is suffused into the spots, so that they are hardly distinguishable.

Length 2—2½ lines.

*Hab.*—Common in moss, among dead leaves, &c.

#### 2. *sabulicola*, Thom.

Only differs from the above in having the tibiæ entirely pale, the second and third joints of antennæ pale, except at their extreme apices, and the thorax less deeply punctured at the base. It is also generally smaller in size.

Length 2 lines.

*Hab.*—Deal; on sandhills.

3. *dilatatus*, H.-Seff. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 6.

Black, covered with more or less depressed golden hairs. Elytra of a pitchy hue. Membrane with a pale-reddish spot at the base. Head, thorax and scutellum coarsely punctured, especially the posterior portion of the latter. Elytra more finely punctured. Legs black, tarsi reddish.

Length  $2\frac{1}{2}$ —3 lines.

*Hab.*—Moss, in sandy localities.

Much wider than the preceding and more oval in shape; cannot be confounded with any of our species.

4. *prætextatus*, H.-Seff. Fig. (*maculipennis*) Curtis, Brit. Ent. xiii. pl. 612.

Smooth, shining. Head, thorax and scutellum black, deeply and coarsely punctured. Elytra pale testaceous, punctured in lines, with a wide band at the apex black. Membrane fuscous, pale at the base. Beneath black. Antennæ black, apex of 1st and 2nd pale. Legs testaceous; front thighs, except at the apex, black; posterior pairs sometimes with a brownish spot or band towards the apex.

Length  $2\frac{1}{2}$ —3 lines.

*Hab.*—Not uncommon on sandy sea shores.

5. *antennatus*, Schill. Fig. Hahn, Wanz. Ins. i. fig. 35.

Head and thorax black, shining, the latter very coarsely punctured posteriorly, much narrowed just above the base. Elytra much widest posteriorly, more or less pale at the base, the rest black, entirely clothed with fine yellowish hairs. Membrane rudimentary. Legs testaceous. Antennæ: 1st joint black, its apical half yellow; 2nd joint yellow, 3rd and 4th thickened and black.

Length  $2\frac{1}{2}$  lines.

Not common in moss; Reigate Hill, Isle of Wight, &c.

#### PERITRECHIUS.

- |  |                     |
|--|---------------------|
| 1. Membrane with a white apical spot ..    | .. <i>luniger</i> . |
| 2. Membrane without a white apical spot .. | .. <i>nubilus</i> . |

1. *luniger*, Schill. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 1.

Ochreous-brown, with sparse, very short, golden hairs visible only under a tolerably strong power. Head black. Thorax black in front; behind brownish, with large darker brown punctures. Sides in the middle pale. Scutellum black. Elytra pale ochreous, punctured with black in

lines. Spaces between the 1st and 2nd and 2nd and 3rd nerves of the corium white just above the membrane, then black, and then whitish again nearer the base: the black spots larger than the white ones; exterior apical angle of corium black. Membrane black, a round spot at the base and apex, and a spot on each side below the apex of the corium, white, nerves pale. Antennæ black, base of 2nd joint red; legs black; front tibiæ, except their apex, red.

Length  $2\frac{1}{2}$  lines.

Not uncommon in heathy places.

2. *nubilus*, Fall.

Brownish-grey. Head black, rugosely punctured. Thorax black in front, covered with fine silvery hairs, paler posteriorly. Scutellum black; apex with a yellow line at each side. Elytra dull ochreous-grey, punctured in lines with black and irregularly spotted with brown. Thighs black, their apices and tibiæ, except at the base, generally pale; tarsi pale, apex darker.

Length  $2\frac{1}{2}$  lines.

Common among dead leaves, &c.

Typical form very rare. Var.? *puncticeps*, Thoms. narrower, darker. Head more deeply and largely punctured. Eyes more prominent. Elytra less mottled. Scutellum with the apex only pale.

#### PLINTHISUS.

I. Thorax as wide in front as behind .. .. *brevipennis*.

II. Thorax narrower in front than behind .. .. *bidentulus*.

1. *brevipennis*, Lat. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 8.

Depressed, black, shining. Thorax nearly square, finely punctured in front, more coarsely posteriorly; basal margin pitchy-brown. Elytra pitchy-black, punctured in lines on the clavus and portion of corium adjoining it, irregularly on the rest, always undeveloped and truncate posteriorly; legs and antennæ pitchy-brown, the former lighter towards the apex.

Length  $1\frac{1}{4}$ — $1\frac{1}{2}$  line.

Common in sandy places.

2. *bidentulus*, H.-Seff. Fig. H.-Seff. Wanz. Ins. vi. fig. 588.

Depressed, shining. Head, thorax and scutellum pitchy-black, punctured, the latter widest behind, basal margin

narrowly pale piceous. Elytra punctured, clavus pale piceous; corium piceous, a good deal darker than the clavus, region of the central nerve pale. Membrane somewhat of a yellowish-milky colour, darker in the middle; legs piceous.

Length  $1\frac{1}{4}$ — $1\frac{1}{2}$  line.

Rare; Dartford Heath.

#### LASIOSOMUS.

1. *enervis*, H.-Scff. Fig. H.-Scff. Wanz. Ins. vi. fig. 618.

Clear testaceous-brown, shining, sparsely covered with long hairs, which are suberect on the thorax and scutellum and adpressed on the elytra. Head and front of thorax and scutellum pitchy-brown, very coarsely punctured; anterior margin of thorax raised and testaceous; elytra, clavus with three rows of punctures, corium with two parallel rows next the clavus and some scattered punctures near the apex; membrane clear and hyaline; abdomen pitchy-brown.

Length  $2\frac{1}{4}$  lines.

Chatham.

#### ACOMPUS.

1. *rufipes*, Wolff. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 1.

Head, thorax, scutellum and body black, coarsely punctured above, covered with silvery hairs below. Elytra punctured in lines, pale ochreous-yellow, a spot at the apex of the corium near the inner angle black, the outer angle brown; membrane milky, with a few brownish spots; antennæ and legs red, apex of former black.

Length  $2\frac{1}{2}$  lines.

Fens and marshes, not rare.

Almost always undeveloped.

#### STYGNOCORIS.

I. Insect black, covered with yellowish hair .. .. *rusticus*.

II. Insect brown.

a. Legs clear testaceous .. .. *sabulosus*.

b. Legs brown or pitchy .. .. *arenarius*.

1. *rusticus*, Fall. Fig. Dougl. & Scott, Brit. Hem. pl. vii. fig. 9.

Widest posteriorly. Black, coarsely and closely punctured, covered with yellowish hairs, external margins of

elytra more or less pitchy; antennæ and legs red, apical joint of former dusky; membrane, when present, dusky, the nerves widely pale.

Length 2—2½ lines.

Common, where it occurs, but local, on *Pulicaria dysenterica*, Cowes, September (Dougl. & Scott).

The developed form is exceedingly rare. Chobham, 1874, 1 spec.; Teignmouth, Wollaston (type of *Stethotropis*), are the only recorded instances of its capture to my knowledge.

2. *sabulosus*, Schill. Fig. Hahn, Wanz. Ins. i. fig. 117.

Clear brown, covered with rather long brownish hairs, slightly shining; much smaller than preceding. Head pitchy-black; thorax very coarsely punctured and covered with long hairs, pitchy-brown on the disk; anterior margin and the base, especially the posterior angles, paler; scutellum pitchy-black, coarsely punctured; elytra testaceous-brown, corium with a line along the margin widening posteriorly and becoming suffused into an irregular patch across the apex, piceous; membrane somewhat dusky, base paler.

Length 1½ line.

Common in sandy places.

3. *arenarius*, Hahn. Hahn, Wanz. Ins. i. fig. 27.

Dull brownish-black, covered with short adpressed brownish-yellow hairs. Head and thorax deeply and coarsely punctured, slightly paler posteriorly; elytra more or less fuscous, corium with an irregular spot near the apex of clavus, and another covering its own apex darker; membrane dusky, nerves pale; antennæ and legs pitchy-brown, apex of former darker.

Length 1½ line.

Common in sandy places and elsewhere.

#### PHYGADICUS.

I. Thorax with long projecting hairs .. .. . *urticæ*.

II. Thorax without long projecting hairs .. .. . *artemisicæ*.

1. *urticæ*, Fab. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 3.

Head and thorax bronzy-black, covered with somewhat long whitish hairs, deeply and coarsely punctured; base of the latter more or less white, especially in the middle. Scutellum bronzy; extreme apex white. Elytra punctured and covered with short whitish hairs, dull ochreous, more



or less spotted or mottled with black; membrane diaphanous. Connexivum black, with yellowish spots. Legs and thighs black, more or less spotted, pale at the base; tibiæ ochreous, each with three black rings. Tarsi ochreous, apex of 1st and 3rd joints black. Antennæ: 1st joint bronzy, its apex and the other joints pale.

Length 3 lines.

Not uncommon, but local; by sweeping among nettles, &c. in summer.

## 2. *artemisia*, Schill.

Head and thorax black, covered with exceedingly short silvery hairs, base of latter dull ochreous. Scutellum black, apex ochreous. Elytra dull ochreous, covered with same sort of pubescence as the thorax, with a more or less distinct brown spot at the inner apical angle, sometimes extending almost across to the lateral margin. Legs thick and short; thighs black, apex ochreous-red; tibiæ ochreous-red, in front legs with the base only, on the others also with a spot above the apex, black. Antennæ: 1st joint black, its apex pale; other joints ochreous, with the extreme base black and the apex more or less dusky.

Length 2—2½ lines.

Reigate Hill, Mickleham, &c. In moss, &c.

## ISCHNODEMUS.

### 1. *sabuleti*, Fall. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 2.

Elongate, parallel, much depressed; head and thorax dull black, posterior angles of the latter pale. Elytra pale ochreous, suture between the clavus and corium, a line on the corium parallel to it, another line parallel to the lateral margin joined together along the apical margin, thus enclosing a sort of triangular space, brown. Membrane white, with a brown cloud across the middle and the nerves brown. Femora black, their apices, tibiæ and tarsi reddish.

Length 3 lines.

Merton and Folkestone.

This species is very rare in the developed form; in undeveloped specimens the clytra are rudimentary ochreous, with the same arrangement of brown lines; the abdomen, of which five segments are visible, is black, densely covered with silvery hairs.

## ISCHNORHYNCHUS.

- I. Species larger,  $2\frac{1}{2}$  lines, darker; found on alder .. *Didymus*.  
 II. Species smaller,  $1\frac{3}{4}$  line, paler; found on heath .. *geminatus*.  
 1. *Didymus*, Zett. Fig. (*resedæ*) Panz. Faun. Germ. 40—20.

Oval, chestnut-brown; head and thorax closely punctured, the latter with a black band across the front. Scutellum black at the base. Elytra outwardly paler; corium punctured only between the discal nerves and along the claval suture; near the centre of the corium on each of the nerves is a small black spot; there are also two small spots on the apical margin, one at the extreme apex the other at the apex of the exterior discal nerve. Membrane large and hyaline; legs same colour as the insect, with the apex of tarsi black; 1st joint of antennæ, base and apex of 2nd, and apical joint, black.

Length  $2\frac{1}{2}$  lines.

Alders. Local.

2. *geminatus*, Fieb. Fig. (*resedæ*) Dougl. & Scott, Brit. Hem. pl. viii. fig. 7.

Almost a fac-simile of the former, two or three sizes smaller; it is paler and rather more shining, and the membrane is less large and voluminous; there is also generally a rime-like appearance on the thorax; scutellum and clavus not visible in the preceding, otherwise the same description will apply to both.

Length  $1\frac{3}{4}$  line.

Common on heath.

## CYMUS.

- I. Scutellum with a pale keel or line down the middle.  
 a. Apical margin of corium not brown .. .. *glandicolor*.  
 b. Apical margin of corium brown .. .. *claviculus*.  
 II. Scutellum without a pale keel or line .. .. *melanocephalus*.  
 1. *glandicolor*, Hahn. Fig. Hahn, Wanz. Ins. i. fig. 45.  
 Pale ochreous, largely punctured. Head reddish. Thorax with a pale dorsal ridge in front. Scutellum with a thick pale carina. Corium paler than clavus, with a darker cloud on each side above the base of the membrane. Membrane slightly smoky. Legs and antennæ ochreous; apical joint of latter fuscous.

Length 2 lines.

Common in damp places.

2. *claviculus*, Fall. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 8.

Differs from preceding in being smaller and having the clytra of a less oval shape. The scutellum also is less strongly carinated, and the apical margin of the corium is brown and much shorter.

Length  $1\frac{1}{2}$ — $1\frac{3}{4}$  line.

Common by sweeping, &c.

3. *melanocephalus*, Fieb.

Nearest allied to *claviculus*; differs in its darker colour, especially the darker colour of the head and front of thorax, in having the keel of the thorax concolorous and in not having any keel on the scutellum, and also in the punctuation of the corium, which is irregular all over; whereas, in *claviculus*, along the claval suture there are two sub-parallel rows of punctures with an impunctate space between them, the rest being closely and irregularly punctured.

Length  $1\frac{3}{4}$  line.

Not uncommon in damp places, Chobham and Reigate; probably generally distributed, but overlooked.

#### CHILACIS.

1. *Typhæ*, Perris. Fig. Dougl. & Scott, Brit. Hem. pl. viii. fig. 6.

Oval, depressed, ochreous, shining. Thorax with the surface somewhat uneven and irregularly punctate. Scutellum punctured with black in the middle; sides slightly raised and pale. Elytra pale ochreous. Clavus punctured in lines; corium irregularly. Membrane hyaline. Legs and antennæ pale.

Length 2 lines.

Heads of bulrushes; Charlwood and Stockton.

